

Dried Blood-Spot Collection Process: Gather Supplies

- Blood collection form
- Sterile 70% alcohol wipes
- Sterile gauze pads
- Sterile Lancet
 - Tip to not exceed 2mm deep
 - Lancets for premature infants available
- Puncture-site after-care supplies per hospital policy
- Gloves
- Warm, moist cloth or compress



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Dried Blood-Spot Collection Process: Complete Form

- Check expiration date on the card
- Complete all the information on the form with blue or black **ballpoint ink**
- Make sure information is complete and legible, or it could delay diagnosis and treatment
- Record birth weight in grams
- **Note:** If the form is electronically generated, be sure to check the accuracy of the information provided



Best Practice: Complete form prior to collection to reduce risk of contamination



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Dried Blood-Spot Collection Process: Step 1

Wash your hands, and **put on your gloves** according to your hospital's policy.

Place the infant's legs lower than its heart to increase venous pressure and enhance blood flow.

Warm the site with a warm, moist cloth for 3 to 5 minutes to increase blood flow.

Choose an appropriate puncture site. The shaded areas on the heel to the right indicate safe areas for puncture. Guidance is also provided on the back of the collection form.



Dried Blood-Spot Collection Process: Step 2

Cleanse the site with an alcohol prep pad, and then **wipe it dry** with sterile gauze and let it air dry.

Any alcohol left on the skin may cause the specimen to become unsuitable and untestable.



Dried Blood-Spot Collection Process: Step 3

Puncture the heel with the lancet on the sole of the foot. Make sure to press the lancet firmly against the skin prior to activating the device.

Wipe away the first drop of blood with a sterile gauze pad. This first drop could contain tissue fluid that could contaminate or dilute the specimen.

Allow another large drop of blood to form; it should be large enough to soak into the filter paper to fill or almost fill the circle.



Dried Blood-Spot Collection Process: Step 4

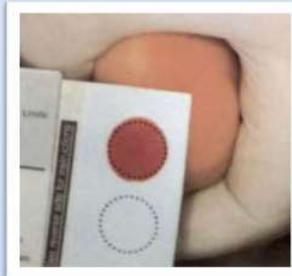
Lightly touch the filter paper to the large drop of blood (being careful NOT to touch the infant's skin), allowing it to absorb evenly.

Allow the blood to soak thru the filter paper, check both sides and **fill the circle**. Whenever possible, use one drop per circle and stop.

Fill in all the remaining circles. If the flow of blood decreases, repeat the collection procedure selecting a different puncture site, and continue to fill the filter paper circles.

DOs and DON'Ts

- DO apply the blood to only one side of the filter paper (although you can use either side).
- Use of capillary tubes, venous blood or a means other than the heel stick procedure to obtain the blood specimen is strongly discouraged.



Dried Blood-Spot Collection Process: Step 5

Very gentle, intermittent pressure may be applied to the area surrounding the puncture site, however, do not “milk” or squeeze the area. This could create serum rings leading to an unsuitable specimen that cannot be tested.

If the first drop of blood does not fill the circle completely, or most of the way, you may immediately express another drop and continue to fill the circle. This must be done within a few seconds of the placement of the first drop in order to prevent clotting.

Alternatively, allow a larger drop to form and move on to the next four circles.

If more than two drops are required to fill the initial circle, or more than 10 seconds has elapsed between application of the blood to the filter paper, prepare to puncture the heel a second time at a different site.

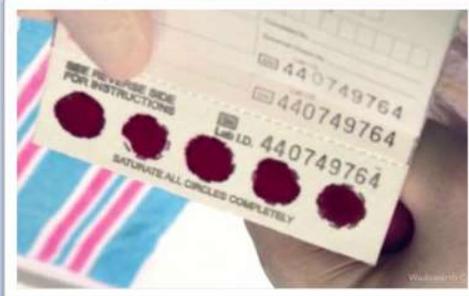


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Dried Blood-Spot Collection Process: Step 6

Once all the circles on the filter paper are full, **complete puncture care** to the site as specified by your institution.

Your freshly collected specimen should look like this:



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Drying the specimen

Allow the specimen to air dry completely on a flat, non-absorbent surface for at least three hours, away from heat and direct sunlight.

- Do not allow the protective flap to touch the blood at any time during the three hour drying period.
- Do not touch or smear the wet dried blood-spot
- Do not refrigerate the specimen
- Do not allow specimens to touch (use drying rack)

